# LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

## M.C.A. DEGREE EXAMINATION – COMPUTER APPLICATIONS

FIRST SEMESTER – NOVEMBER 2015

### CA 1808 - DATABASE MANAGEMENT SYSTEMS

Date : 12/11/2015          Dept. No.                     Max. : 100 Marks
Time : 01:00-04:00

## PART – A

**Answer ALL questions**                                    **10 X 2 = 20**

1.  Define database languages.
2.  List the parts of SQL languages.
3.  Give the attribute types.
4.  Define 1NF.
5.  What is digital signature?
6.  Define buffer management.
7.  What is query processing? Give its basic steps.
8.  What is cost-based optimizer?
9.  What do you mean by ACID properties?
10. List the types of transaction failures.

## PART – B

**Answer ALL questions**                                    **5 X 8 = 40**

11. a) Discuss the relational algebra of various operations.

**Or**

b) Write note on various modification operations with example.

12. a) Elucidate extended ER features with example.

**Or**

b) What is multivalued dependency? Explain 4NF with example.

13. a) Write short note on fundamentals of web.

**Or**

b) Illustrate various level of RAID and its choices.

14. a) Write short note on static hashing technique with example.

**Or**

b) Explain various equivalence rules.

15. a) Describe deadlock handling in transaction management.

**Or**

b) Write note on recovery in concurrent execution with example.

## PART – C

16. a) Write note on the following:

      i.   Table joins      ii.  Set operations      iii.  Aggregate functions

  b) Discuss all the notations of ER with an example.

17. a) Explain magnetic disk and flash storage drivers.

  b) Explain the expression evaluation techniques.

18. a) Discuss on time-stamp based protocols of transaction with example.

  b) "Oracle has adopted RDBMS concepts effectively" - Discuss.


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